

IN THE CLAIMS:

Please cancel Claims 2, 4, 10-15, 17-26, 28, and 29, without prejudice or disclaimer of the subject matter therein.

Please amend Claims 1, 3, 5-9, 16, and 27, as indicated below. The following is a complete listing of claims and replaces all prior versions and listings of claims in the present application:

1. (currently amended) An encoding apparatus for encoding images of frames[[,]] which form a moving image by motion compensation, ~~characterized by~~ comprising:

input means for inputting images of frames;

section division means for dividing the frames into a plurality of sections on the basis of the images of the frames input by said input means;

representative image setting means for setting ~~one representative image that represents the image of each frame, as a representative image, an image of a self frame, which has a smallest sum total value of differences from a group of images of other frames~~ in each of the sections divided by said section division means; and

reference image selection means for selecting one representative image to be referred to so as to encode an image of a frame of interest from the representative images set for respective sections, and

~~wherein in that~~ the image of the frame of interest is encoded by motion compensation using the images of the frames in the section that includes the representative image selected by said reference image selection means.

2. (canceled)

3. (currently amended) The apparatus according to claim 1, ~~characterized in that wherein~~ said section division means comprises difference determination means for determining with reference to images of frames in an order said input means inputs whether or not an image difference between neighboring frames is not less than a predetermined value, and

when said difference determination means refers to images in turn from an image of a first frame, and determines that a difference between an image of a second frame and an image of a third frame as a next frame of the second frame is not less than the predetermined value, said difference determination means sets the first and second frames as one section.

4. (canceled).

5. (currently amended) The apparatus according to claim 1, ~~characterized in that wherein~~ said reference image selection means calculates prediction errors of motion compensation with an image of a frame to be encoded for respective representative images set in the respective sections, and selects the representative image that minimizes the prediction error.

6. (currently amended) The apparatus according to claim [[1]] 3, ~~wherein characterized in that~~ the difference is a sum total value obtained by summing up differences between pixel values of corresponding pixels in two images for all or some pixels that form the images.

7. (currently amended) The apparatus according to claim 1, ~~eharaeterized in that wherein~~ said section division means further comprises:

 determination means for determining whether or not a frame of interest is included in a section to which a frame immediately before the frame of interest belongs;

first setting means for, when the frame of interest is included in the section to which the frame immediately before the frame of interest belongs, setting the representative frame set in the section or the frame of interest as a new representative image in the section on the basis of images of respective frames in the section and an image of the frame of interest; and

second setting means for, when the frame of interest is not included in the section to which the frame immediately before the frame of interest belongs, setting a new section which is different from the section and includes the frame of interest.

8. (currently amended) The apparatus according to claim 7, ~~characterized in that~~ wherein said determination means calculates a difference between an image of a last frame of the section to which the frame immediately before the frame of interest belongs, and the image of the frame of interest, and when the calculated difference is not more than a predetermined threshold, said determination means determines that the frame of interest is included in the section to which the frame immediately before the frame of interest belongs.

9. (currently amended) The apparatus according to claim 7, ~~characterized in that~~ wherein said first setting means further comprises:

first calculation means for calculating differences between respective frames in the section, and the frame of interest, and calculating a sum total value of the calculated differences;

second calculation means for calculating a difference between the representative frame set in the section and the image of the frame of interest;

representative frame setting means for, when a sum of the value calculated by said second calculation means and a threshold is not less than the sum total value calculated by

said first calculation means, setting the frame of interest as a new representative frame in the section;

first threshold setting means for, when the sum value is not less than the sum total value calculated by said first calculation means, setting the sum total value calculated by said first calculation means as the threshold; and

second threshold means for, when the sum value is not more than the sum total value calculated by said first calculation means, setting the sum value as the threshold.

10. - 15. (canceled).

16. (currently amended) An encoding method of encoding images of frames[[,]] which form a moving image by motion compensation, ~~characterized by~~ comprising:

an input step of inputting images of frames;

a section division step of dividing the frames into a plurality of sections on the basis of the images of the frames input in the input step;

a representative image setting step of setting ~~one representative image that represents the image of each frame, as a representative image, an image of a self frame, which has a smallest sum total value of differences from a group of images of other frames~~ in each of the sections divided in the section division step; and

a reference image selection step of selecting one representative image to be referred to so as to encode an image of a frame of interest from the representative images set for respective sections, and

wherein in that the image of the frame of interest is encoded by motion compensation using the images of the frames in the section that includes the representative image selected in the reference image selection step.

17. - 26. (canceled).

27. (currently amended) A non-transitory computer-readable storage medium for storing a program, which when executed by a computer, cause the computer to perform the encoding method of claim 16 characterized by storing a program of claim 24.

28. (canceled).

29. (canceled).